UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/575,431 | 04/10/2006 | Jiro Kiyama | 65325 (70904) | 2093 |

21874        7590        12/27/2011
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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2481 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 12/27/2011 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
| :--- | :--- | :--- |
| **Office Action Summary** | 10/575,431 | KIYAMA ET AL. |
| | Examiner | Art Unit | |
| | DAVID HARVEY | 2481 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on <u>06 December 2011</u>.

2a) ☒ This action is **FINAL**.  2b) ☐ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

5) ☒ Claim(s) <u>58-62</u> is/are pending in the application.

    5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☒ Claim(s) <u>58 and 59</u> is/are allowed.

7) ☒ Claim(s) <u>60-62</u> is/are rejected.

8) ☐ Claim(s) ____ is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

## Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☒ The drawing(s) filed on <u>10 April 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All  b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. ____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>10/6/2011, 9/21/2011, 8/16/2011, 5/5/2011, 6/21/2011, 8/4/2011</u>

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. ____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: ____.

**1.     It is again noted that on 11/22/2010, applicant submitted a certified English translation of priority document #2003-352932 having a filing date of 10/10/2003. It is agreed that this document supports the instant claims and, as such, that the instant claims are entitled to 10/10/2003 priority date.**

**2.     The examiner notes that the IDS submissions, previously not considered by the examiner, have now been considered in accordance with applicant's arguments (see attached PTO-1449s).**

**3.     The following is noted:**

**A)** For the record:

1) The examiner notes that, in addition to the "means for ..." terminology, the following non-exhaustive list of non-structural terms may likewise invoke Section 112-6:

a) "mechanism for ...";

b) "module for ...";

c) "device for ...";

d) "unit for ...";

e) "component for ...";

f) "element for ...";

g) "member for ...";

h) "apparatus for ..."

i) "machine for...";

j) "system for ...";

k) etc,...

It is noted, however, that "circuit for" has been determined to be a "structural term" that does not invoke section 112-6.
**[e.g., SEE: Federal Register/Vol.76, No. 26/Wednesday, February 9, 2011 @ first full paragraph of center column on page 7167]**

B) It is further noted that alternative expressions substituted for "for" of a "[*means*] for" recitation (e.g., "adapted to", configured to", etc,...) are insufficient denote structure and, as such, are insufficient to avoid triggering the presumed interpretation/construction under Section 112-6 presumption.
**[e.g., Ex parte Rodriguez, 92 USPQ2d 1395].**

C) For a computer-implemented means-plus-function claim limitation that invokes 35 112, sixth paragraph, the corresponding structure is required to be more than simply a general purpose computer or microprocessor.[1] The corresponding structure for a computer-implemented function must include the algorithm as well as the general purpose computer or microprocessor.[2] The written description of the specification must at least disclose the algorithm that transformed the general purpose microprocessor to a special purpose computer programmed to perform the claimed function.[3] Applicant may express the algorithm in any understandable terms including as a mathematical formula, in prose, in a flow chart, or in any manner that provides sufficient structure.[4]

### B)  With respect to claim 58 (and 59 which depends therefrom):

1) The recited ***"data acquiring section for ...."*** recited in lines 2-8 of claim 58 is construed as being a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, given: that the claim limitation meets the 3-prong analysis set forth under section 2181 of the MPEP; and that which is set forth above in part "A" of this paragraph.  It is noted that this recited "section" appears to correspond to the "optical disk reading" circuitry illustrated, for example, @ 50 of Figure 1 **[e.g., note lines 19-23 on page 26 of the instant specification].**  As such, this recited section has been construed as being limited to such optical disk reading circuitry (and equivalents thereof).

2) The recited ***"program executing section for ...."*** recited in line 9 of claim 58 is construed as being a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, given: that the claim limitation meets the 3-prong analysis set forth under section 2181 of the MPEP; and that which is set forth above in part "A" of this paragraph.  It is noted that this recited "section" appears to correspond to the "program execution" circuitry illustrated, for example, @ 10 of Figure 1  having the structure shown in Figure 2.  As such, this recited section

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[1] *See Aristocrat Technologies Inc. v. International Game Technology*, 521 F.3d 1328, 1333, 86 USPQ2d. 1235, 1239-1240 (Fed. Cir. 2008)

[2] *See WMS Gaming, Inc. v.  International Game Technology*, 184 F.3d 1339, 51 USPQ2d. 1385 (Fed. Cir. 1999)

[3] *See Aristocrat*, 521 F.3d  at 1338, 86 USPQ2d. at 1243.

[4] *See Finisar Corp. v The DIRECTV Group Inc*, 523 F.3d 1323, 1340, 86 USPQ2d. 1385  (Fed. Cir. 1999)

has been construed as being limited to such execution circuitry (and equivalents thereof).

3) The recited *"synchronization control section for ...."* recited in lines 10-12 of claim 58 is construed as being a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, given: that the claim limitation meets the 3-prong analysis set forth under section 2181 of the MPEP; and given that which is set forth above in part "A" of this paragraph. It is noted that this recited "section" appears to correspond to "block 22" of Figure 4. As pointed out by applicant on page 10 of the arguments filed 12/6/2011, the disclosure does in fact clearly link and associate disclosed structure, material, or acts to with this block. As such, this recited block has been construed as being limited to the disclosed structure/acts identified by applicant (and equivalents thereof).

4.      **The following is a quotation of the second paragraph of 35 U.S.C. 112:**

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

5.      **Claim 61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A) <u>With respect to claim 61:</u>

Claim 61 is confusing and indefinite because the preamble of the claim indicates that the claim is direct to a "non-transitory recording medium", per se. However, the body of the claim does not appear to be limited to the "data structure" stored on the medium, but incorporates the apparatus of claim 58 therein. As such, the preamble appears to be misdescriptive with respect to what it actually being claimed; i.e., the claim appears to be directed to the combination of the recited medium and the apparatus of claim 58. Appropriate clarification is needed.

*To overcome this rejection, it is suggested that "A" in line 1 of claim 61 be changed to read, --The apparatus of claim 58 wherein the apparatus receives data from a--; and that "are supplied to a content reproducing apparatus set forth in claim 58 as needed during the operation thereof" be deleted.*

**6.    The following references have again been cited as being illustrative of audio/visual display art which synchronized additional content with a displayed A/V stream via trigger data comprised of trigger elements each of which trigger elements were indicative a specific action that was to be performed at a specific time/location in the A/V stream:**

A)  <u>US Patent Document #2002/0188628 to Cooper et al</u>:

<u>Cooper et al</u>. has been cited because it evidences the fact that it was well known in the art to produced an interactive program by associating interactive content at different points in time of time-based media [e.g., **SEE: paragraph 0001; and lines 1-4 of paragraph 0005**].

B)  <u>US Patent Document #2003/0229899 to Thompson et al</u>:

e.g., See Figures 2-4.

C)  <u>US Patent Document #2003/0095794 to Chung et al</u>:

<u>Chung et al</u>. has been cited as being illustrative of a content reproducing apparatus which produced an interactive program by associating interactive content at different points in time of time-based media  as described in Cooper et al. discussed above [e.g., **SEE: Figures 11-15;  and paragraphs 0094-0101**].  The A/V stream and interactive content in <u>Chung et al</u> is provided from a DVD source [e.g., **100 of Figure 11**].

D)  <u>US Patent Document #7,930,642 to Phillips et al.</u>:

<u>Phillips et al.</u> has been cited because is describes a system in which an enhancement "file" is associated with television programming content wherein:

1) The enhancement filed includes "trigger information" [e.g., **note lines 29-60 of column 7**];  and

2) The "trigger information" may be used to cause to cause the execution of a computer program (e.g., a JAVA script program) [e.g., **note lines 52-55 column 7**].

      E)  US Patent Document #7,945141 to Jung et al. (which claims priority to US Provisional Application #60/508,315):[5]

          e.g., Note: the last 14 lines on page 2;  the last 18 lines on page 4; Figure 4; lines 10-17 on page 7; Figure 5; and lines 1-11 on page 8 of the Provisional Application.

      F)  US Patent Document #7,346,920  to Lamkin et al.:

          e.g., Note: lines 60-67 of column 28, and columns 29-30.

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[5] e.g., Note: paragraph 6-10 on pages 4-5 of the Office action mailed 6/25/2010; and pages 14-16 of the arguments filed 11/22/2010.

**7.        The following references have again been cited as being illustrative of system, of the type discussed in paragraph 5 of this Office action, which provided the required trigger data as a data table/file:**

    A)  <u>US Patent Document #2003/0229899 to Thompson et al:</u>

        i.e., See Figure 2.

    B)  <u>US Patent Document #2005/0022226 to Ackley et al.:</u>

        <u>Ackley et al.</u> has been cited because is describes saving trigger data, comprised of triggers, as:

            1) a database table; or

            2) Alternatively, as a "file".

            **[e.g., note paragraph 0034]**

    C)  <u>US Patent Document #2006/0136982 to Martinolich et al.:</u>

        <u>Martinolich et al.</u> has been cited because is describes saving trigger data, comprised of triggers, as:

            1) Separate/distinct files.

            **[e.g., note lines 7-18 of paragraph 0026]**

    D)  <u>US Patent Document #2004/0175154 to Yoon et al:</u>

        <u>Yoon et al</u> has been cited because it evidences the fact that it was known to have associating interactive content (e.g., ENAV data) with time-based A/V media using a separate sync file
        **[e.g., SEE: paragraphs 0060 and 0037].**

8.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**9.    Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,945,141 to <u>Jung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u>, and the 1984 publication "Structured Computer Organization" by <u>Tanenbaum</u>.**

<u>I. Preface (applicant's arguments)</u>:

*A) The examiner maintains that the modified system of Jung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to be executed by the program at a predetermined playback times of the content.*

*B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

*C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*

<u>II. The showing of Jung et al</u>:

A) As previously noted by applicant, the examiner acknowledges that the <u>Jung et al</u> patent is entitled to the 10/6/2003 priority date of US Provisional Application #60/508,315 only with respect to that subject matter that is described in said US Patent that was previously described in said Provisional Application.

B) Given that set forth in part A of this section, the examiner notes that <u>Jung et al</u> is relied upon for the following showings:

    1) The showing of a DVD storage medium [Figure 1] having data stored thereon including:

a) "Core data" comprising AV data and navigation data for a conventional DVD application;

b) "System data"; and

c) "Data for Programming Function" for "supporting a programming function" comprising:

>1. An applications (e.g., a JAVA application); and

>2. Event generation information for generating events at respective designated time points or locations of the played A/V data in order to synchronize the JAVA application to the display of the played AV data, wherein:

>>a. The event generation information comprises information for generating trigger events by associating trigger IDs to respective specific time points or locations (e.g., presentation time stamps) in the AV stream; and

>>b. The so generated trigger events are recognized and, in response thereto, a corresponding operation is executed according to the program function programmed by the JAVA application.

The examiner maintains that the illustration of Figure 1 is itself suggestive of separate file structures for each of the "boxes" given conventional DVD files structure; i.e., the examiner taking Official notice that such DVD file structure was notoriously well known in the art.


2) The showing of conventional DVD playback circuitry [Figure 4] comprising:

>1) A data acquiring section [@ 420];

>2) A program executing section [e.g., @ 440];

>3) A synchronizing control section [e.g., within 460] which:

>>1) Receives the event generating information from the execution [@ 440];

>>2) Compares the time/location code portion of the event information (trigger) to that of the reproduced A/V data stream; and

3) Provides the event ID portion of the event information (trigger) to the execution section;

wherein the execution section executes a corresponding portion of the JAVA application so as to perform a specific operation and, thereby, synchronizing the execution of the application to the running/presentation of the A/V data stream.

## III. Differences:

Claim 60 differs from the showing of Jung et al: only in that Jung et al does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data; and does not describe implementing the system via software.

## IV. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in Thompson et al to have been analogous to the event information described in Jung et al given that the event table in Thompson et al, like the event information in Jung et al, -

A) Provided pairings between event IDs and time/locations of the A/V stream; and

B) Was used to synchronize the execution of an application to the running/presentation of the A/V stream in like manner.

The examiner maintains that it would have been obvious to have utilized (i.e., substituted) the event table shown in Figure 2 of Thompson et al. as the event information described in Jung et al; i.e., the two schemes represent a limited number of known alternative and, as such, it would have been obvious to try.

2) Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of Jung et al on the DVD within a separate file as evidences to have been known and desirable by the showing of Martinolich et al. [e.g., note paragraph 0026].

3) Tanenbaum has been cited as evidencing the fact that those of ordinary skill in the art have long recognized hardware and software implementations of a given processing operation to be obvious and equivalent [note lines 10-13 of page 11]. In light of this showing, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the modified system of Jung et al using a software driven processor (i.e., wherein the software

must necessary be stored via some type of non-transitory processor readable medium in order to be executed).


**10.     Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,945,141 to <u>Jung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u>.**


### I. Preface (applicant's arguments):

*A) The examiner maintains that the modified system of Jung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to be executed by the program at a predetermined playback times of the content.*

*B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

*C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*


### II. The showing of Jung et al:

A) As previously noted by applicant, the examiner acknowledges that the <u>Jung et al</u> patent is entitled to the 10/6/2003 priority date of US Provisional Application #60/508,315 only with respect to that subject matter that is described in said US Patent that was previously described in said Provisional Application.

B) Given that set forth in part A of this section, the examiner notes that <u>Jung et al</u> is relied upon for the following showings:

1) The showing of a DVD storage medium [Figure 1] having data stored thereon including:

> a) "Core data" comprising AV data and navigation data for a conventional DVD application;
>
> b) "System data"; and
>
> c) "Data for Programming Function" for "supporting a programming function" comprising:
>
>> 1. An applications (e.g., a JAVA application); and
>>
>> 2. Event generation information for generating events at respective designated time points or locations of the played A/V data in order to synchronize the JAVA application to the display of the played AV data, wherein:
>>
>>> a. The event generation information comprises information for generating trigger events by associating trigger IDs to respective specific time points or locations (e.g., presentation time stamps) in the AV stream; and
>>>
>>> b. The so generated trigger events are recognized and, in response thereto, a corresponding operation is executed according to the program function programmed by the JAVA application.

The examiner maintains that the illustration of Figure 1 is itself suggestive of separate file structures for each of the "boxes" given conventional DVD files structure; i.e., the examiner taking Official notice that such DVD file structure was notoriously well known in the art.

2) The showing of conventional DVD playback circuitry [Figure 4] comprising:

> 1) A data acquiring section [@ 420];
>
> 2) A program executing section [e.g., @ 440];
>
> 3) A synchronizing control section [e.g., within 460] which:
>
>> 1) Receives the event generating information from the execution [@ 440];

2) Compares the time/location code portion of the event information (trigger) to that of the reproduced A/V data stream; and

3) Provides the event ID portion of the event information (trigger) to the execution section;

wherein the execution section executes a corresponding portion of the JAVA application so as to perform a specific operation and, thereby, synchronizing the execution of the application to the running/presentation of the A/V data stream.

## III Differences:

Claim 61 differs from the showing of Jung et al only in that Jung et al does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data.

## IV. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in Thompson et al to have been analogous to the event information described in Jung et al given that the event table in Thompson et al, like the event information in Jung et al, -

A) Provided pairings between event IDs and time/locations of the A/V stream;  and

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The examiner maintains that it would have been obvious to have utilized (i.e., substituted) the event table shown in Figure 2 of Thompson et al. as the event information described in Jung et al; i.e., the two schemes represent a limited number of known alternative and, as such, it would have been obvious to try.

2)  Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of Jung et al on the DVD within a separate file as evidences to have been known and desirable by the showing of Martinolich et al. [e.g., note paragraph 0026].

***It is noted that this rejection has been maintained in light of the section 112-2 issues set forth above in paragraph 5 of this Office action.  The rejection would be overcome if the changes suggested above in paragraph 5 were adopted.***

11.     **Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,945,141 to <u>Jung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u> .**

### I. Preface (applicant's arguments):

*A) The examiner maintains that the modified system of Jung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to be executed by the program at a predetermined playback times of the content.*

*B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

*C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*

### II. The showing of Jung et al:

A) As previously noted by applicant, the examiner acknowledges that the <u>Jung et al</u> patent is entitled to the 10/6/2003 priority date of US Provisional Application #60/508,315 only with respect to that subject matter that is described in said US Patent that was previously described in said Provisional Application.

B) Given that set forth in part A of this section, the examiner notes that <u>Jung et al</u> is relied upon for the following showings:

1) The showing of a DVD storage medium [Figure 1] having data stored thereon including:

a) "Core data" comprising AV data and navigation data for a conventional DVD application;

b) "System data"; and

c) "Data for Programming Function" for "supporting a programming function" comprising:

    1. An applications (e.g., a JAVA application); and

    2. Event generation information for generating events at respective designated time points or locations of the played A/V data in order to synchronize the JAVA application to the display of the played AV data, wherein:

        a. The event generation information comprises information for generating trigger events by associating trigger IDs to respective specific time points or locations (e.g., presentation time stamps) in the AV stream; and

        b. The so generated trigger events are recognized and, in response thereto, a corresponding operation is executed according to the program function programmed by the JAVA application.

The examiner maintains that the illustration of Figure 1 is itself suggestive of separate file structures for each of the "boxes" given conventional DVD files structure; i.e., the examiner taking Official notice that such DVD file structure was notoriously well known in the art.


2) The showing of conventional DVD playback circuitry [Figure 4] comprising:

    1) A data acquiring section [@ 420];

    2) A program executing section [e.g., @ 440];

    3) A synchronizing control section [e.g., within 460] which:

        1) Receives the event generating information from the execution [@ 440];

        2) Compares the time/location code portion of the event information (trigger) to that of the reproduced A/V data stream; and

        3) Provides the event ID portion of the event information (trigger) to the execution section;

wherein the execution section executes a corresponding portion of the JAVA application so as to perform a specific operation and, thereby, synchronizing the execution of the application to the running/presentation of the A/V data stream.

## II. Differences:

Claim 62 differs from the showing of <u>Jung et al</u> only in that <u>Jung et al</u> does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data.

## III. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in <u>Thompson et al</u> to have been analogous to the event information described in <u>Jung et al</u> given that the event table in <u>Thompson et al</u>, like the event information in <u>Jung et al</u>, -

A) Provided pairings between event IDs and time/locations of the A/V stream;  and

B) Was used to synchronize the execution of an application to the running/presentation of the A/V stream in like manner.

The examiner maintains that it would have been obvious to have utilized (i.e., substituted) the event table shown in Figure 2 of <u>Thompson et al</u>. as the event information described in <u>Jung et al</u>; i.e., the two schemes represent a limited number of known alternative and, as such, it would have been obvious to try.

2)  Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of <u>Jung et al</u> on the DVD within a separate file as evidences to have been known and desirable by the showing of <u>Martinolich et al</u>. [e.g., note paragraph 0026].

**12.    Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Document #2003/0095794 to <u>Chung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u>, in further view of the 1984 publication "Structured Computer Organization" by <u>Tanenbaum</u>.**

> ### I. Preface (applicant's arguments):

> > *A) The examiner maintains that the modified system of Chung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to executed by the program at a predetermined playback times of the content.*

> > *B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

> > *C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*

> ## II.  <u>The showing of Chung et al</u>:

> > 1) <u>Chung et al</u>. discloses a content reproducing apparatus as was set forth above in part "C" of paragraph 6 of this Office action.

> > 2) With respect to the limitations of claim 60, it is the examiner's position that, as shown in Figure 11, <u>Chung et al</u> discloses a content reproducing apparatus that included:

> > > a) A non-transitory recording medium (@ 100) having various data files stored thereon (@ Figure 1);

> > > b) A data acquiring section (e.g., @ 1);

c) A program execution section (e.g., @ 3); and

d) A synchronization control section (@ 25)

**[e.g., Note: paragraphs 0003, 0005, 0006, 0096; and Figure 13].**

## III. Differences:

Claim 60 differs from the showing of <u>Chung et al</u> only in that <u>Chung et al:</u> does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data; and does not describe implementing the system via software.

## IV. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in <u>Thompson et al</u> to have been analogous to the event information described in <u>Chung et al</u> given that the event table in <u>Thompson et al</u>, like the event information in <u>Chung et al</u>, -

     A) Provided pairings between event IDs and time/locations of the A/V stream; and

     B) Was used to synchronize the execution of an application to the running/presentation of the A/V stream in like manner.

The examiner maintains that it would have been obvious to have utilized (i.e., substituted) the event table shown in Figure 2 of <u>Thompson et al</u>. as the event information described in <u>Chung et al</u>; i.e., the two schemes represent a limited number of known alternative and, as such, it would have been obvious to try.

2) Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of <u>Chung et al</u> on the DVD within a separate file as evidences to have been known and desirable by the showing of <u>Martinolich et al</u>. [e.g., note paragraph 0026].

3) <u>Tanenbaum</u> has been cited as evidencing the fact that those of ordinary skill in the art have long recognized hardware and software implementations of a given processing operation to be obvious and equivalent [note lines 10-13 of page 11].

In light of this showing, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the modified system of <u>Chung et al</u> using a software driven processor (i.e., wherein the software must necessary be stored via some type of non-transitory processor readable medium).

13.     **Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Document #2003/0095794 to <u>Chung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u>**

### I. Preface (applicant's arguments):

*A) The examiner maintains that the modified system of Chung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to executed by the program at a predetermined playback times of the content.*

*B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

*C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*

### II.  The showing of Chung et al:

1) <u>Chung et al</u>. discloses a content reproducing apparatus as was set forth above in part "C" of paragraph 6 of this Office action.

2) With respect to the limitations of claim 60, it is the examiner's position that, as shown in Figure 11, <u>Chung et al</u> discloses a content reproducing apparatus that included:

   a) A non-transitory recording medium (@ 100) having various data files stored thereon (@ Figure 1);

   b) A data acquiring section (e.g., @ 1);

   c) A program execution section (e.g., @ 3); and

          d) A synchronization control section (@ 25)

          **[e.g., Note: paragraphs  0003, 0005, 0006, 0096; and Figure 13].**

## III. Differences:

Claim 61 differs from the showing of <u>Chung et al</u> only in that <u>Chung et al</u> does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data.

## IV. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in <u>Thompson et al</u> to have been analogous to the event information described in <u>Chung et al</u> given that the event table in <u>Thompson et al</u>, like the event information in <u>Chung et al</u>, -

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2) Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of <u>Chung et al</u> on the DVD within a separate file as evidences to have been known and desirable by the showing of <u>Martinolich et al</u>. [e.g., note paragraph 0026].

***It is noted that this rejection has been maintained in light of the section 112-2 issues set forth above in paragraph 5 of this Office action.  The rejection would be overcome if the changes suggested above in paragraph 5 were adopted.***

14.    **Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Document #2003/0095794 to <u>Chung et al</u> in view of: US Patent Document #2003/0229899 to <u>Thompson et al</u>; and US Patent Document #2006/0136982 to <u>Martinolich et al</u>.**

### I. Preface (applicant's arguments):

*A) The examiner maintains that the modified system of Jung et al, as set forth below, comprises synchronizing information for generating "triggers" that identify events in accordance with an associated playback "time" of the content. Thus, these triggers are at least event "IDs". However, it is maintained that these event IDs are used by the associated computer program/software to execute/perform a predetermined action/process for each of the events that are identified by the event "IDs". As such, at least via the associated program, the event IDs likewise target/ID predetermined actions/processes that are to be executed by the program at a predetermined playback times of the content.*

*B) In the context of the instant claims, not necessarily the context of the instant disclosure, the alleged "difference" between what the IDs of the invention and prior art "represent" appears to be an issue of semantics; i.e., do the IDs represent events or actions. Even in the case of the applied prior art, the examiner maintains that the answer to this question is "both" – the IDs represent both an event and an associated action/process to be executed by the computer program in response/association therewith.*

*C) The examiner acknowledges that applicant's invention appears have advantages over the system of the applied prior art in that applicant's invention permits the process/action specified by the computer software/program to be modified independently of the trigger information thereby allowing the respective content, sync, and program files to be easily mixed and/or replaced with other content, sync, and program files. However, the examiner does not believe that this is reflected in the instant claims and, particularly, it what the ID allegedly represent.*

### II.  The showing of Chung et al:

1) <u>Chung et al</u>. discloses a content reproducing apparatus as was set forth above in part "C" of paragraph 6 of this Office action.

2) With respect to the limitations of claim 60, it is the examiner's position that, as shown in Figure 11, <u>Chung et al</u> discloses a content reproducing apparatus that included:

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       d) A synchronization control section (@ 25)

       **[e.g., Note: paragraphs 0003, 0005, 0006, 0096; and Figure 13].**

## III. Differences:

Claim 62 differs from the showing of <u>Chung et al</u> only in that <u>Chung et al</u> does not describe event information as comprising a separate file; i.e., a file stored on the DVD separate from or within the program data.

## IV. Obviousness:

1) Although directed to the broadcast art, the examiner maintains that one of ordinary skill in the art would have understood the event table of Figure 2 in <u>Thompson et al</u> to have been analogous to the event information described in <u>Chung et al</u> given that the event table in <u>Thompson et al</u>, like the event information in <u>Chung et al</u>, -

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The examiner maintains that it would have been obvious to have utilized (i.e., substituted) the event table shown in Figure 2 of <u>Thompson et al</u>. as the event information described in <u>Chung et al</u>; i.e., the two schemes represent a limited number of known alternative and, as such, it would have been obvious to try.

2) Further it would have been obvious to one of ordinary skill in the art to have stored the event table of the modified system of <u>Chung et al</u> on the DVD within a separate file as evidences to have been known and desirable by the showing of <u>Martinolich et al</u>. [e.g., note paragraph 0026].

**15.    The following is an examiner's statement of reasons for allowance:**

> *In light of paragraph 3 of this Office action, the examiner agrees that the applied prior art of record does not show or fairly suggest the recited "synchronization control section" as set forth in the contest of claims 58 and 59.*

**Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."**

16.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

17.　　　Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345.  The examiner can normally be reached on M-F from 6:00AM to 3PM.

　　　If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. William Vaughn, can be reached on (571) 272-3922.  The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

　　　Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.  Status information for published applications may be obtained from either Private PAIR or Public PAIR.  Status information for unpublished applications is available through Private PAIR only.  For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/
Primary Examiner, Art Unit 2481


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Primary Examiner
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